REMARKS

Initially, in the Office Action dated May 11, 2004, the Examiner rejects claims 1, 2 and 7-12 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,546,279 (Kubo et al.). Claim 3 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of European Patent No. 1063561 A1 (Brandt et al.). Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of U.S. Patent No. 6,504,582 (Li et al.). Claim 5 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of U.S. Patent No. 6,020,945 (Sawai et al.). Claim 6 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of U.S. Patent No. 4,527,862 (Arakawa).

By the present response, Applicant has submitted new claims 16-22 for consideration by the Examiner and submits that these claims do not contain any prohibited new matter. Applicant has amended claims 1, 7 and 13 to further clarify the invention. Claims 1-22 remain pending in the present application.

35 U.S.C. §102 Rejections

Claims 1, 2 and 7-12 have been rejected under 35 U.S.C. §102(e) as being anticipated by Kubo et al. Applicant respectfully traverses these rejections.

Kubo et al. discloses a liquid crystal display device that has a position information input device over an image-displaying surface of liquid crystal panel. The position information input device is formed by a first substrate and a second substrate more easily deformable than the first substrate. A transparent insulation

film is provided over a surface of the first substrate opposed to the second substrate. By providing a first transparent electrode on the transparent insulation film, the flatness of the first transparent electrode is improved and a connection failure of the position information input device is prevented.

Regarding claims 1 and 7 and new claims 16 and 17, Applicant submits that Kubo et al. does not disclose or suggest the limitations in the combination of each of these claims of, inter alia, a display window for placement and registration with a display so that the display is viewable through the window, wherein a first outer surface of the window is for exposure to a user, and a second outer surface of the window is for placement adjacent the display, the second outer surface being provided with an incorporated grating to distribute light from an associated source of illumination in the direction of the display. The Examiner asserts that Kubo et al. discloses a first surface with 40A, a second surface with 40B, a display with 1, and an incorporated grating for distributing light with 8 (microprisms), and further asserts Fig. 8 and col. 10, lines 43-65 of Kubo et al. against the limitations in the claims of the present application. However, this is not a second outer surface being provided with an incorporated grating to distribute light from an associated source of illumination in the direction of the display, as recited in the limitations of the claims of the present application. The microprisms 8 in Kubo et al. are not on an outer surface, as recited in the claims of the present application, but are part of a transparent resin layer 40F that is part of the illumination and touch panel 40 (see col. 9, lines 32-35 and col. 10, lines 12-24). Kubo et al. clearly shows in Fig. 7 the

layer 40F containing microprisms 8 not residing on an outer surface, i.e., the transparent hard substrate 40B.

Moreover, to help the Examiner better understand the differences between Kubo et al. and the present invention, Applicant provides the following explanations. According to embodiments of the present invention, the second outer surface of the display window is provided with an incorporated grating and is for placement adjacent the display. Consequently, the light that is distributed by the grating need not travel through the display window. Less light is therefore attenuated than if the light were traveling through the display window, which means that front lighting can be more easily achieved. A further consequence of the second outer surface being provided with an incorporated grating is that fewer parts are involved in the construction of a display assembly, as a separate grating is not needed. The cost of producing the assembly is therefore reduced as well as the need for a separate grating and one associated gasket is removed. The decrease in component count helps to increase reliability. As the assembly comprises fewer parts, the amount of time required to construct the display assembly is also reduced. The volume of the display assembly may also be reduced as a separate grating is not needed, this being advantageous if the display assembly is used in portable devices.

In contrast, Kubo et al. discloses microprisms 8 being formed on the upper surface of the lower transport hard substrate 40B (see Fig. 7, and col. 10, lines 16-19). Light from the lamp 3A is reflected by the inclined surface of the ridge like microprisms 8 and is directed in the direction of the liquid crystal panel (see col. 10,

lines 62--65). The light that is then reflected from the liquid crystal panel 1 is transmitted through the lower transparent hard substrate 40B (see col. 10, lines 37-40). Kubo et al. discloses the light defracting mechanism being incorporated within the display window 40. In the display window disclosed by Kubo et al., the light has to travel through the transparent hard substrate 40B after being reflected by the microprisms 8. A proportion of the light from lamp 3A is likely to be attenuated before it reaches the liquid crystal display and therefore front lighting is not as easily achieved as it is in embodiments of the present invention. Further, in Kubo et al., there are also more parts to the display window so it also likely to be larger in volume.

Further, Kubo et al. teaches a method of integrating a touch panel into a liquid crystal display device. It is therefore concerned with adding features and components to the display window. This teaches away from the present invention which is concerned with reducing the number of components in the display window to achieve front lighting of the display more easily, improve the reliability of the device, reduce the cost of producing the device, and reduce the volume of the device.

Regarding claims 2 and 8-12 and new claims 18-22, Applicant submits that these claims are dependent on one of independent claims 1, 7 and 17 and, therefore, are patentable at least for the same reasons noted regarding these independent claims. For example, Applicant submits that Kubo et al. does not

disclose or suggest where the illumination source is disposed between the display window and the display, or where the grating comprises a plurality of grooves.

Accordingly, Applicant submits that Kubo et al. does not disclose or suggest the limitations in the combination of each of claims 1, 2 and 7-12 of the present application. Accordingly, Applicant respectfully requests that these rejections be withdrawn and that these claims be allowed.

35 U.S.C. §103 Rejections

Claim 3 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of Brandt et al. Applicant respectfully traverses this rejection.

Brandt et al. discloses a reflective liquid crystal display having a light deflecting element comprising a plurality of triangular projections for deflecting the light that is laterally incident on a light inlet surface in the direction of a liquid crystal cell to improve display readability.

Regarding claim 3, Applicant submits that this claim is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted previously regarding this independent claim. Applicant submits that Brandt et al. does not overcome the substantial defects noted previously regarding Kubo et al. For example, Applicant submits that none of the cited references disclose or suggest where the grating is in the form of a surface comprising a plurality of triangular projections.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 3 of the present application. Applicant respectfully requests that this rejection be withdrawn and that this claim be allowed.

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of Li et al. Applicant respectfully traverses this rejection.

Li et al. discloses a scratch resistant display that includes a substrate, an active portion on one surface of the substrate including at least a conductive layer, and a homeotropic organosilane layer deposited on the active portion for reducing energy dissipation of an object contacting the display.

Applicant submits that claim 4 is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted previously regarding this independent claim. Applicant submits that Li et al. does not overcome the substantial defects noted previously regarding Kubo et al. For example, Applicant submits that none of the cited references disclose or suggest where the first surface of the display window is provided with a toughened coating.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 4 of the present application. Applicant respectfully requests that this rejection be withdrawn and that this claim be allowed.

Claim 5 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of Sawai et al. Applicant respectfully traverses this rejection.

Sawai et al. discloses an optical filter which is adapted to prevent the reflection of external light and improve a signal level of a signal sent from a display device by preventing attenuation thereof and which is further adapted to prevent a change in hue of an image and to improve the hue, contrast and brightness of an image, thereby enhancing visibility.

Applicant submits that claim 5 is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted regarding this independent claim. Applicant submits that Sawai et al. does not overcome the substantial defects noted previously regarding Kubo et al. For example, Applicant submits that none of the cited references disclose or suggest where the first surface of the display window is provided with an antireflective coating.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claims 5 of the present application. Applicant respectfully requests that this rejection be withdrawn and that this claim be allowed.

Claim 6 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of Arakawa. Applicant respectfully traverses this rejection.

Arakawa discloses a liquid crystal display keyboard that has a keyboard which is arranged on a liquid crystal display and has upper and lower conductive films each having transparent electrodes and arranged in spaced and facing relation to each other. An elastic member is arranged on the upper transparent conductive film.

Applicant submits that claim 6 is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted regarding this independent claim. Applicant submits that Arakawa does not overcome the substantial defects noted previously regarding Kubo et al. For example, Applicant submits that none of the cited references, disclose or suggest where the window comprises a polycarbonate material.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 6 of the present application. Applicant respectfully requests that this rejection be withdrawn and that this claim be allowed.

Claims 13-15 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kubo et al. in view of Imai. Applicant respectfully traverses these rejections.

Imai discloses a display apparatus that includes a display apparatus main body, illuminating component and transparent plate. The display apparatus main body has a flat screen. The illuminating component is formed into a frame to correspond a peripheral edge portion of the screen, and is arranged in tight contact with the screen. The transparent plate is arranged on an opposite side of the screen in tight contact with the illuminating component to face the screen. The illuminating component entirely seals the peripheral portion of the gap between the screen and the transparent plate.

Regarding claim 13, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of this claim of, inter alia, a portable telephone where the housing comprises a window with first and second outer surfaces where the first outer surface defines an exterior surface at the portable telephone and the second outer surface, which faces the display is provided with an incorporated grating for distributing light from the light source onto the display. As noted previously, Kubo et al. does not disclose or suggest these limitations in the claims of the present application. For example, Kubo et al. does not disclose or suggest a second outer surface, which faces the display is provided with an incorporated grating for distributing light from the light source onto the display. Further, Imai does not overcome the substantial defects noted previously regarding Kubo et al.

Regarding claims 14 and 15, Applicant submits that these claims are dependent on independent claim 13 and, therefore, are patentable at least for the same reasons noted regarding this independent claim. For example, none of the cited references disclose or suggest where the housing is a front cover of the telephone or where the window is integrally formed with the housing.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 13-15 of the present application. Applicant respectfully requests that these rejections be withdrawn and that these claims be allowed.

In view of the foregoing amendments and remarks, Applicant submits that claims 1-22 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (referencing attorney docket no. 1156.40991X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

Frederick D. Bailey
Registration No. 42,282

FDB/sdb
(703) 312-6600